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PHYSICS AND ASTRONOMY CLASSIFICATION SCHEME (PACS)

Shortened version for use in classifying papers for Applied Physics

General

02 Mathematical methods in physics
06 Measurement science and metrology
07 Specific instrumentation
- 07.60 Optical instruments and techniques, detection of radiation
- 07.65 Optical spectroscopy and spectrometers
- 07.75 Mass spectrometers and mass-spectroscopy techniques
- 07.80 Electron and ion microscopes and spectrometers; techniques
- 07.85 X-ray and gamma-ray instruments and techniques

Atomic and molecular physics

32 Atomic spectra and interactions with photons
33 Molecular spectra and interactions of molecules with photons
34 Atomic and molecular collision processes and interactions
35 Experimentally derived information on atoms and molecules
36 Studies of special atoms and molecules (macro- and polymer molecules, clusters)

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- 42.10 Propagation and transmission in homogeneous media
- 42.20 Propagation and transmission in inhomogeneous media
- 42.30 Optical information, image formation and analysis
- 42.40 Holography
- 42.50 Quantum optics
- 42.55 Laser processes
  - C *Pumping mechanisms*
  - E *Molecular gas lasers* (CO_2, CO, N_2O, *formaldehyde*)
  - G *Excimer lasers*
  - H *Atomic, ionic, and other gas lasers*
  - M *Laser action in liquids and organic dyes*
  - P *Laser action in semiconductors*
  - R *Laser action in solid-state lasers*
  - T *Free-electron lasers*
- 42.60 Laser systems and laser-beam applications
  - B *Design of specific laser systems*
  - D *Laser resonators, cavities, and amplifiers*
  - E *Laser beam deflection and focusing*
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- 42.65 Nonlinear optics
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- 42.80 Optical devices, techniques, and applications (including fiber and integrated optics)

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- 61.80 Radiation damage and other irradiation effects

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